

Inspection of Commercial Fertilizers — 1985

By Lester Hankin

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During 1985, 316 official samples of fertilizer were collected by inspectors of the Connecticut Department of Agriculture and examined for authenticity of guaranteed analysis that is stated on the label and compliance with State Regulations. Other fertilizer samples were tested for farmers and Station research but are not included in this Bulletin. Although all guaranteed analyses are examined, only the results for the major plant nutrients of nitrogen, phosphoric acid, and potash are presented in this Bulletin.

Table 1 shows individual samples from 59 manufacturers. The numbers preceding the brand name are the guaranteed analyses. For example, 10-10-10, indicates the guaranteed percentage for nitrogen (N), phosphoric acid (P2O5), and potash (K2O), in that order. The actual content is then shown, with deficiencies indicated by a dash following the amount found. Table 2 summarizes for each manufacturer the number of guarantees examined for each plant nutrient, the percentage of the samples not meeting their guarantee, and the average percentage of guarantee found. Table 3 shows the tonnage of the various grades of mixed fertilizer sold in Connecticut. Only grades prepared by at least three manufacturers are shown; other grades are placed in the miscellaneous category. The tonnage of fertilizer material and mixed fertilizer sold in Connecticut is shown in Table 4.

Two types of variability affect fertilizer analysis and must be considered in judging deficiencies. The first is the variability among different batches of the same grade from a manufacturer. This variability can be noted in Table 1 by examining the analyses of the same grade from the same manufacturer. The second type of variability is between duplicate analyses of the same sample. The variability among duplicate analyses is shown in the statement: the mean difference between duplicates for nitrogen and phosphoric acid is about two-tenths percent and for potash about three-tenths percent.

Fertilizer samples are deemed deficient in any nutrient if the analysis is below the guarantee by more than the values established by the Association of American Feed Control Officials. Overall, 311 guarantees for nitrogen were made and 7.7% were deficient, 300 guarantees for phosphoric acid and 8.7% were deficient, and 299 guarantees for potash and 13.7% were deficient. In 1985 the percentages of deficiencies for nitrogen and phosphoric acid are lower than in 1984. For potash, the percentage of deficiencies is higher in 1985 than in 1984.

Analyses were performed by H. Kocaba, M. Pyles, M.A. Illig, E. Hickson, and J. Smart. Samples were collected by J. Chapman, J. Dippel, D. Nisely, and A. VanDyke under the direction of K. Veit. Fertilizer laws are administered by the Commissioner of Agriculture.

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Table 1. Analysis of Individual Samples of Commercial Fertilizers.

Manufacturer, guarantee and brand				Nutrients found, %			Manufacturer, guarantee and brand				Nutrients found, %		
				N	P2O5	K2O					N	P2O5	K2O
<u>A.H. Hoffman, Inc.</u>							<u>Atlas Fish Fert.</u>						
05	09	06	Hoffman Rose Food	6.5	9.7	7.3	05	01	01	Atlas Fish Emulsion Plant Food	5.6	1.7	2.0
<u>Agino, Inc.</u>							05	01	01	Atlas Fish Emulsion Plant Food	5.3	1.5	1.8
37			Sulfur Coated Urea	37.7			05	01	01	Atlas Fish Emulsion Plant Food	5.4	1.5	2.0
<u>Agri-Turf, Inc.</u>							<u>Burnishine Products, Inc.</u>						
25	05	10	Agri-Turf	26.3	7.9	8.7-	03	02	01	Burnishine Terranium Plantfood	2.5	1.9	1.0
<u>Agrico Chemical Corp.</u>							<u>Cadwell & Jones</u>						
15	30		Agrico Fertilizer		24.8	25.1-	05	10	05	Surge Lawn & Garden	5.2	6.8-	5.5
<u>Agway, Inc.</u>							05	10	05	Surge	5.7	7.1-	4.1-
04	12	39	Agway Blend		17.4	38.7	05	10	10	Specialty Fertilizer	5.6	12.1	10.5
07	16	32	Agway Bulb Bloomer	4.0	18.7	6.0	05	10	10	Surge Veg. & Flower	5.9	12.7	10.3
10	06	04	Agway Turffood Special	13.2	6.4	5.6	10	06	04	Hi-Organic Fert	13.0	6.3	4.1
10	10	10	Agway Nutri-Bond	10.2	10.0	11.6	10	06	04	Surge Lawn & Garden Fertilizer	6.3-	4.9-	3.3-
10	15	15	Agway Nutri-Bond Taterbest	10.5	17.0	13.4-	10	06	04	C & J Hi-Organic	10.8	6.1	4.7
10	20	10	Agway Corn Starter Nutri-Bond Amm	10.6	23.8	8.6-	10	06	04	Surge Lawn & Garden	9.8	4.7-	3.7
15	15	15	Agway Nutri Bond	14.7	16.8	14.7	10	06	10	Specialty Fertilizer	16.6	8.4	5.4-
16	32	16	Agway Start & Gro 100% Water Sol	13.4-	33.1	14.3-	10	10	10	Specialty Fertilizer	11.3	10.4	10.1
18	18	18	Agway Blend	23.5	20.4	16.1-	18	02	04	Cadwell & Jones + Iron W/Dursban	21.5	1.6	3.1-
18	18	18	Agway Blend	18.9	14.7	25.5	20	10	10	Super Surge Lawn Food 50% Org N	21.2	10.1	10.9
20	14	21	Agway Blend	20.3	12.6-	32.4	20	10	10	Super Surge Lawn Food	22.8	11.2	9.9
20	20	20	Agway Sol-U-Green	13.1-	21.6	22.2	20	10	10	Super Surge Lawn Food	22.7	12.2	11.7
21	10	21	Agway Blend	20.5	16.0	34.5	21	07	07	Specialty Fertilizer	22.0	5.3-	6.1-
21	10	21	Agway Blend	22.7	13.1	23.3	23	06	09	Surge	28.7	5.4	6.0-
22	06	08	Agway Greenlawn Fert	23.6	7.5	4.9-	23	06	09	Surge Lawn & Garden	26.3	6.4	9.3
22	06	08	Agway Greenlawn Fert	23.4	6.7	7.1-	32			C & J Specialty SCU	32.4		
22	12	18	Agway Blend	23.1	11.6	19.3	33	10	10	Surge Turf Products	36.8	9.9	15.9
22	13	18	Agway Blend	22.6	10.5-	27.9	4.59	5.62	6.20	C & J Specialty	5.1	4.4	6.4
22	13	18	Agway Blend	21.3	10.3-	25.7	4.59	5.62	6.20	C & J Specialty	5.2	5.8	6.1
22	14	18	Agway Blend	22.0	13.3	18.9	4.59	6.94	5.22	C & J Specialty	4.2	7.2	5.4
22	14	18	Agway Blend	22.8	12.8-	21.5	4.59	8.20	3.98	C & J Specialty	5.1	7.2-	3.7
23	12	18	Agway Blend	23.2	18.7	22.6	4.65	5.69	5.29	C & J Specialty	4.7	5.9	5.5
23	13	17	Agway Blend	23.5	17.8	15.1-	4.65	5.69	5.29	C & J Specialty	4.8	4.8-	4.8
24	05	22	Agway Blend	23.2	6.3	31.0	4.68	7.07	4.14	C & J Specialty	5.2	6.4	4.2
25	05	20	Agway Blend	20.3-	5.4	30.7	4.68	7.07	4.14	C & J Specialty	4.9	7.1	4.2
27	11	14	Agway Blend	24.5-	14.6	18.5	4.73	5.8	4.19	C & J Specialty	5.3	4.7-	4.6
27	23		Agway Blend	26.8	26.5		4.73	5.80	4.19	C & J Specialty	4.8	6.7	4.7
<u>Allied Corp.</u>							4.73	7.16	3.19	C & J Specialty	4.0-	5.6-	3.1
21			Sulf-N45	21.8			4.8	5.88	3.24	C & J Specialty	4.80	5.5	3.0
<u>Anderson Peat</u>							4.80	5.88	3.24	C & J Specialty	4.4	6.2	3.5
01	01	01	Composted Cow Manure	1.5	1.0	1.0	7.2	7.2	7.14	C & J Specialty	5.7-	6.7	6.7
<u>Andersons Lawn Fertilizer Div.</u>							<u>Carefree Garden Prod.</u>						
28	04	12	Hart's Premium Lawn Fert	30.9	3.9	15.2	07	40	06	Mag Amp Indoor/Outdoor Plant Food	7.2	46.0	6.8
							<u>Charles C. Hart Seed Co.</u>						
							10	06	04	Hart's Turf Food 50% Org Lawn Fd	11.5	7.2	4.1
							20	12	08	Hart's Pro Turf Food	25.4	15.1	8.4
							<u>Chevron Chem. Co.</u>						
							03	10	03	Ortho Vitamin B-1 Plant Starter	2.5	11.0	3.3

Manufacturer, guarantee and brand				Nutrients found, %		
				N	P2O5	K2O
05	01	01	Ortho Fish Emulsion Fert	5.6	1.4	1.8
05	10	05	Ortho Houseplant Food	5.3	9.6	5.6
05	10	05	Ortho Houseplant Food	5.5	10.6	5.1
05	10	10	Ortho Vegetable Garden Food	6.0	10.6	8.6-
05	15	05	Ortho Up-Start Root Stimulator	5.4	15.2	5.5
05	15	05	Ortho Up-Start	5.0	14.7	5.0
06	09	05	Ortho Liq Afr Violet Food	6.4	9.4	5.1
06	18	06	Ortho Tomato & Vegetable Food	6.7	17.8	6.5
08	12	04	Ortho Rose & Flower Food	8.7	11.9	4.7
10	08	07	Ortho Fern & Ivy Food	11.3	8.4	7.9
10	08	07	Ortho Fern & Ivy Food	12.0	8.3	7.6
10	08	07	Ortho Evergreen & Azalea Food	11.1	7.1-	8.9
10	10	10	Ortho Gen Purp Plant Food	15.0	10.5	13.7
12	06	06	Ortho Ortho-Gro Liquid Plant Food	13.1	5.3	6.1
14	07	07	Ortho Evergreen, Tree & Shrub Fd	14.8	9.0	9.0
<u>Ciba-Geigy Corp.</u>						
20	20	20	Spectrum Earth Care	15.4-	19.6	20.1
<u>Clinton Nursery Prod.</u>						
04	10	10	New Era Flowering Plant	4.9	9.0-	12.5
05	01	01	New Era Fish Emulsion	5.8	1.8	1.4
05	12	09	New Era Flowering Plant	5.5	13.0	10.2
06	12	06	New Era Solid Plant Food	7.8	12.9	8.9
07	15	08	New Era Plant Food	6.5	16.8	10.0
08	08	08	New Era Plant Food	8.5	7.4	9.6
11	15	20	New Era Plant Food Tablets	11.1	15.2	21.7
12	06	06	New Era Solid Plant Food	14.7	0.3-	15.3
<u>Crop Production Services</u>						
05	10	05	Agrico-Village Green	5.1	9.2-	4.7
05	10	05	Agrico Village Green 50% Org N	4.8	9.5	5.1
05	10	05	Agrico Village Green	10.1	17.3	5.1
05	10	10	Agrico Fertilizer	9.0	13.9	11.4
05	10	10	Agrico	8.2	22.2	14.5
06	03	06	Agrico Tobacco	6.2	3.4	3.8-
08	08	08	Agrico Fertilizer	9.5	5.8-	5.1-
10	06	04	Agrico Village Green	17.9	12.6	3.6
10	06	04	Agrico Village Green	8.6-	16.0	6.6
10	06	04	Agrico-Village Green 50% Org N	11.2	7.7	3.6
10	10	10	Agrico	11.7	8.6-	9.4
10	10	10	Agrico Village Green Specialty	13.2	17.8	11.0
10	10	10	Agrico	12.6	13.6	12.8
10	20	20	Agrico Fertilizer	18.4	29.3	10.3-
14		41	Agrico	15.4		42.0
15	10	10	Agrico Fertilizer	16.0	12.0	7.4-
15	10.7	10.7	Agrico	14.3	11.6	12.3
15	15	15	Agrico	17.3	15.1	15.1
15	15	15	Agrico	19.5	22.1	15.0
19	19	19	Agrico	20.1	20.7	17.5-
19	19	19	Agrico Fertilizer	19.0	20.0	11.7-

Manufacturer, guarantee and brand				Nutrients found, %		
				N	P2O5	K2O
22	08	24	Agrico Fertilizer	23.0	8.8	15.7-
46			Agrico Urea	46.1		
<u>Espoma Co.</u>						
04	03	02	Espoma Plant-Tone	5.37	5.7	3.2
04	06	04	Espoma Hollytone	4.6	9.2	3.7
04	07	10	Espoma High Organic Tomato Food	5.3	10.7	13.3
04	07	10	Espoma Tomato Food	5.5	12.6	7.7-
06	02	01	Espoma Cotton Seed Meal	6.1	2.5	1.8
<u>Estech, Inc.</u>						
05	10	05	Gro-Tone Plant Food	7.4	10.1	10.7
05	10	05	Gro-Tone Plant Food	6.6	15.1	6.3
05	10	05	Gro-Tone Plant Food	5.5	13.9	6.6
05	10	05	Swift	5.7	21.9	5.9
05	10	05	Perk-Up Plant Food	13.9	20.3	8.1
05	10	10	Red Steer	14.4	27.2	9.9
06	08	06	Gro-Tone Evergreen Food 30% Org N	7.7	8.0	5.6
06	10	04	Vigoro All Purpose	9.5	11.9	7.3
10	06	04	Swift Lawn Weeder and Feeder	12.9	6.5	5.4
10	06	04	Deerfield Lawn Food	15.2	12.6	5.3
10	06	04	Gro-Tone Lawn Craft Turf Food	18.1	13.0	4.1
15	10	10	Red Steer	19.4	13.6	14.4
15	15	15	Red Steer	17.5	19.7	12.1-
24	02	09	Par-Ex	33.6	2.4	10.1
24	03	10	Par-Ex	34.2	3.1	11.8
26	03	05	Par-Ex Weed and Feed	32.0	4.6	3.6-
27	03	03	Super K-Gro	28.2	3.1	1.7-
32	03	08	Par-Ex	34.4	4.2	4.4-
<u>Faesy & Besthoff, Inc.</u>						
06	01	01	F & B Cottonseed	6.4	2.8	1.8
45			F & B Urea Lawn Food	45.1		
45			F & B Urea Lawn Food	46.8		
<u>Fer-Mel Corp.</u>						
20		10	Fer-Mel	17.8-		14.9
25	05	10	Fer-Mel Prem Lawn Food	37.5	6.8	8.8-
<u>Green Charger Fert. Co.</u>						
12	04	08	Gen Purp Lawn & Garden	8.3-	4.9	14.1
<u>Holland Bulb Products</u>						
09	09	06	Holland Bulb Booster	12.4	13.4	6.2
09	09	06	Holland Bulb Booster	15.1	13.9	4.4-
<u>Hy-Trous/Flash Sales, Inc.</u>						
04	12	04	Hy-Trous African Violet Liq Fert	4.4	11.3	5.5
05	05	01	Mer-Made Fish Emulsion Plant Food	5.0	5.3	1.4
05	05	01	Mer-Made Fish Emulsion Plant Food	5.9	5.5	1.4
05	10	05	Hy-Trous	4.4-	11.0	5.8

Manufacturer, guarantee and brand				Nutrients found, %		
				N	P2O5	K2O
05	10	05	Hy-Trous Liquid Fert	4.7	10.0	5.6
05	10	05	Hy-Trous Liquid Fert	5.2	10.0	5.1
05	10	05	Hy-Trous Liquid Fert	5.1	10.2	4.7
<u>Hyponex Corp.</u>						
05	10	05	Hyponex Houseplant Food All Purp	4.6	10.8	6.0
07	06	19	Hyponex Houseplant Food All Purp	7.1	7.1	20.2
07	06	19	Hyponex Houseplant Food All Purp	7.9	7.1	21.4
07	06	19	Hyponex Plant Food	7.6	7.1	21.9
08	04	02	Hyponex All Org Fish Pl Fd Stks	9.9	7.2	3.0
10	05	05	Hyponex Hypo-styx Foliage Pl Fd	12.0	5.9	6.1
10	05	05	Hyponex Bug Dart plus Plant Food	13.1	6.2	6.3
<u>International Minerals & Chem. Co.</u>						
11	52		MAP	11.6	52.8	
<u>International Spike</u>						
05	15	15	Jobe's Fert. Spikes - Fruit Trees	13.7	13.4-	15.7
08	24	08	Jobe's Fert Spikes/Tom/Gard Veg	12.9	26.5	10.3
12	06	08	Jobe's Fert Spikes/Evgr Trees	16.4	8.3	12.9
12	16	12	Jobe's Fertilizer Spikes - Roses	15.8	16.5	14.5
13	04	05	Jobe's Plant Fd Spks/House Plnts	13.6	5.3	6.8
13	04	05	Jobe's Plant Food Spikes	13.0	5.4	6.1
13	04	05	Jobe's Plant Food Spikes	13.2	4.9	6.8
13	05	07	Jobe's Fert Spikes/Flow/Shrubs	18.7	5.7	8.8
15	05	05	Jobe's Spikes for Young Trees	17.1	5.6	9.5
16	01	06	Jobe's Plnt Fd Spks/Ferns/Palms	17.0	2.3	7.3
16	08	08	Jobe's Fert. Spikes - Trees	23.3	9.4	8.9
20	20	20	Jobe's Plnt Fd/Indoor-Outdoor	18.1-	20.2	22.3
<u>J. T. Baker Chemical Co.</u>						
09	09	06	One-A-Bulb Prem Fert Tabs	10.0	9.5	14.1
<u>Kalium Chemical</u>						
		62	Muriate of Potash			63.1
<u>Koos, Inc.</u>						
05	10	05	Nature's Best Garden Fert	6.6	11.8	14.1
<u>Lebanon Chem. Corp.</u>						
05	10	04	Lebanon Veg Gard Food	3.5-	12.6	5.5
05	10	05	Country Squire Lawn & Garden	5.0	8.5	4.6
07	02		Agrinite 100% Organic	9.3	3.1	
09	05	03	Acre	14.0	5.7	5.1
09	05	03	Lebanon Azal, Evergreen & Rhod	9.9	5.7	4.4
09	19	09	Greenview Tomato-Mate	11.1	24.0	12.9
10	06	04	Country Squire Lawn & Garden	11.4	5.8	4.6
10	06	04	Lebanon Grass Food	10.4	6.6	4.1
10	10	10	Lebanon	10.2	12.3	10.3
13	25	12	Green Pro Fall Grass Food	13.4	25.1	12.1
13	25	12	Green Pro Fall Grass Food	13.3	24.6	13.6

Manufacturer, guarantee and brand				Nutrients found, %		
				N	P2O5	K2O
18	04	10	Lebanon Country Club	18.7	4.2	9.6
20	08	08	Greens Keeper w/50% Org Nit	20.1	8.0	8.8
24	04	04	Green Pro Crabgrass Prev/Grass Fd	31.2	4.1	3.5
24	04	04	Green Pro Crabgrass Prev/Grass Fd	34.8	3.4	2.4-
30	03	03	Green Pro Weed Cont + Grass Food	31.8	4.4	2.1-
30	03	03	Green Pro Weed Cont + Grass Food	33.5	2.7	2.5-
30	04	04	Green Power	33.3	3.7	4.3
32	04	04	Green Pro Grass Food	32.4	4.4	4.8
32	04	04	Green Pro Grass Food	32.9	3.8	4.4
<u>Leeming Div./Pfizer Inc.</u>						
01	02	01	House in Bloom Flowering Plant Fd	1.0	2.3	1.1
<u>Lesco, Inc.</u>						
18	05	09	Lesco Prof Turf Fert W/Lescosan	17.6	6.4	9.3
<u>Lofts, Inc.</u>						
05	09	06	Lofts Flower Food	8.6	8.9	5.6
05	10	10	Lofts Tomato & Veg Food	7.9	5.5-	6.2-
05	10	10	Lofts Tomato & Vegetable Food	12.7	9.5	2.9-
07	09	07	Lofts Broadleaf & Vegetable Food	10.8	19.7	3.7-
<u>Marcon Distributing Co., Inc.</u>						
15	30	15	Marcon's Plant Food	9.6-	28.8	16.3
<u>Milwaukee Metropolitan Sewerage District</u>						
06	02		Milorganite Active Sewage Sludge	6.2	2.2	
<u>Nitrochem, Inc.</u>						
34			Bull's Eye Ammonium Nitrate	34.8		
<u>Nor-Am Chemical Co.</u>						
38			Nitroform Blue Chip	37.0		
<u>O. M. Scott & Sons Co.</u>						
15	20	15	Burpee Grow Tomatoes	17.3	20.7	14.6
18	04	07	Burpee Grow Azal/Camellia/Rhod	19.3	5.1	7.4
18	12	14	Burpee Grow Flowers	18.0	11.9	13.7
18	12	14	Burpee Grow Flowers	19.5	11.8	13.0
18	24	06	Burpee Grow Transplants	19.4	26.6	5.2-
18	24	06	Burpee Grow Vegetables	19.8	25.0	5.0-
18	24	06	Scott's Starter Fert	20.3	24.4	5.7
18	24	06	Burpee Grow Vegetables	19.0	25.1	6.1
20	04	08	Burpee Grow Shrubs/Trees/Evgrns	23.7	4.5	6.6-
26	03	03	Scott's Turf Bldr/Weed Cont/Ln Fd	26.6	2.8	2.8
27	03	03	Scotts Turf Builder	28.7	3.3	4.0
<u>Old Fox Chemical, Inc.</u>						
05	06	07	Old Fox Custom Mix	4.7	11.1	9.4
05	10	05	Old Fox Garden Food	5.5	11.4	8.6
05	10	05	Old Fox	5.5	12.9	7.0

Manufacturer, guarantee and brand				Nutrients found, %		
				N	P2O5	K2O
05	10	05	Old Fox Garden Food	5.1	8.9-	11.7
05	10	10	Old Fox	7.4	24.2	15.3
06	10	06	Old Fox Shrub & Tree Food	14.1	12.1	17.6
06	10	06	Old Fox Shrub & Tree Food	11.2	10.2	15.5
10	06	04	Old Fox Turf Grass 50% Org N	11.2	7.8	18.4
10	06	04	Old Fox Turf Food 50% Org N	15.3	8.9	7.7
10	08	10	Old Fox for Tobacco	11.3	10.3	9.4
10	10	10	Old Fox	10.8	24.2	15.3
10	10	10	Old Fox	12.4	12.5	6.6-
10	20	10	Old Fox	9.6	14.1-	10.9
10	20	20	Old Fox	12.0	21.6	20.2
12	02	08	Old Fox	12.1	2.2	10.7
15	15	15	Old Fox	15.8	12.6-	16.0
16	09	10	Old Fox	13.7-	9.3	12.5
18	07	29	Old Fox Blend	16.7-	6.3-	45.5
18	11	17	Old Fox	18.1	13.9	17.2
20	04	08	Old Fox Green Gro 40% Org N	20.1	8.1	9.9
24	04	24	Old Fox Blend	19.4-	9.0	30.7
4.59	5.62	6.20	Old Fox Custom	5.2	7.0	6.4
4.64	4.41	6.27	Old Fox Custom	4.5	7.9	7.0
4.65	5.69	5.29	Old Fox Custom	5.4	4.1-	5.4
4.70	4.47	5.36	Old Fox Custom	5.0	6.5	6.7
4.73	5.80	4.19	Old Fox Custom	4.8	7.1	5.8
4.76	3.27	5.42	Old Fox Custom	5.1	5.4	5.4
4.88	2.38	4.32	Old Fox Custom	6.7	8.9	4.0
4.95	3.39	3.33	Old Fox Custom	5.1	5.1	5.2
7.2	7.2	7.14	Old Fox Custom	6.3-	6.8	8.9
<u>Parrot Agro Industries, Inc.</u>						
15	30	15	Power-Gro Power Conc & Vit Nutr	15.7	31.6	13.8-
20	20	20	Parrots Professional Formula	20.5	20.7	20.4
30	10	10	Power-Gro Acidifier & Plant Food	30.2	9.4	10.4
<u>Plant Research Lab</u>						
01	02	01	Oxygen Plus Plant Food	1.3	2.4	1.4
01	02	01	Oxygen Plus Plant Food Vit Nutr	1.2	2.1	1.2
01	04	02	Oxygen Plus Flowering Houseplant	1.5	4.2	2.1
04	04	04	Oxygen Plus Outdoor Cont Pl Fd	4.3	3.7	5.7
1.3	2.5	1.2	Oxygen Plus Indoor Plant Food	1.4	2.6	1.4
<u>Plantabbs Corp.</u>						
08	06	12	Plantabbs Terranium Plant Food	18.4	6.5	13.7
<u>Rapid-Gro Corp.</u>						
10	08	07	Rapid-Gro Liquid Houseplant Food	11.0	8.2	8.0
23	19	17	Rapid-Gro Plant Food	13.3-	19.7	18.9
23	19	17	Rapid-Gro House Pl Fd W/Mic Nutr	23.2	19.4	18.4
23	19	17	Rapid-Gro House Plant Food	22.9	20.5	18.3
23	19	17	Rapid-Gro House Plant Food	24.1	19.2	18.6
<u>Robert N. McClellan & Son, Inc.</u>						
02	01	02	Bovung Dehydrated Cow Manure	1.0-	1.1	1.1-

Manufacturer, guarantee and brand				Nutrients found, %		
				N	P2O5	K2O
<u>Ross Daniels, Inc.</u>						
08	16	16	Ross Gro-Stks/Frt-Orn Tree/Shrbs	9.9	18.8	18.7
08	16	16	Ross Gro-Stakes	10.7	18.5	18.9
09	46	15	Ross Gro For Young Trees	10.1	51.0	17.6
10	10	10	Ross Gro-Stakes Evergreens	11.4	11.7	12.3
10	10	10	Ross Gro-Stakes	11.2	11.8	10.4
10	10	10	Ross Gro-Stakes for Evergreens	12.4	12.1	12.3
16	04	08	Ross Gro-Stks Evgr/Azal/Cam/Rhod	17.8	4.6	14.6
16	10	09	Ross Gro-Stakes Trees & Shrubs	17.2	10.4	8.8
16	10	09	Ross Gro-Stakes	17.4	12.8	8.8
<u>Schultz Co.</u>						
10	15	10	Schultz Instant Liq Plant Food	10.5	14.1-	10.9
<u>Sierra Chem. Co.</u>						
18	06	12	Osmocote Controlled Release	17.0	7.6	13.4
<u>Sohio Chem. Co.</u>						
46			Vistron	46.1		
<u>Sterns Nurseries, Inc.</u>						
15	30	15	Miracle Gro Plant Food	16.1	33.8	16.6
15	30	15	Miracle Gro Plant Food	17.0	30.0	15.4
18	18	21	Miracle Gro Tomatoes	10.8-	19.6	21.1
30	10	10	Miracle Soil Acidifier & Pl Fd	33.2	10.3	10.9
<u>Sudbury Lab</u>						
		44	Sudbury Potash			48.4
		44	Sudbury Phosphorus		56.5	
		44	Sudbury Nitrogen	48.4		
<u>Unique Fertilizer, Inc.</u>						
16	08	16	The Unique Feeder	18.6	13.9	18.8
<u>Universal Chemical Co., Inc.</u>						
05	10	03	Electra Plant Food	5.7	8.4-	3.1
<u>Valagra, Inc.</u>						
08	23	12	Valagra	12.0	22.2	18.1
10	06	04	Valagra	11.5	6.8	4.5
10	10	10	Valagra	12.5	11.7	10.1
12	04	08	Valagra Custom Blend	12.3	5.1	7.2-
12	04	08	Valagra w/Pell Limestone	10.0-	1.6-	2.6-
12	15	15	Valagra	16.4	19.2	8.1-
15	05	10	Valagra	15.5	7.7	10.3
20	05	10	Valagra	20.6	6.6	1.3-
22		22	Valagra	25.0		20.3-
<u>W. R. Grace & Co.</u>						
07	40	06	Mag AMP Continuous Release	7.8	46.2	5.7

Manufacturer, guarantee and brand				Nutrients found, %		
				N	P2O5	K2O
10	30	20	Peters Prof Sol P1 Fd/Bloss Boost	11.1	31.5	22.5
12	36	14	Peters Spec Sol P1 Fd/Afr Violet	12.3	40.5	13.2
15	30	15	Peters Prof Sol P1 Fd/Houseplant	15.6	30.4	16.7
15	30	15	Peters Pro Sol P1 Fd/Houseplant	15.4	30.1	17.7
15	30	15	Peters Houseplant Food	10.0-	29.9	17.9
17	06	06	Peters Pro Sol P1 Fd/Acid Grn	16.9	6.2	7.8
18	18	18	Peters Prof Sol Plant Food	17.4	19.2	19.4
20	20	20	Peters Prof Gen Purp	12.3-	17.1-	22.8
21	07	07	Peters Spec Sol P1 Fd/Acid Spec	21.7	8.7	8.5
30	10	10	Peters Professional Orchid	30.1	12.4	13.0
30	10	10	Peters Prof Sol Plant Food	21.8-	12.0	12.9
<u>Waterlizer Div. of American Aqua-Tec.</u>						
35	05	10	Waterlizer Lawn Food	35.7	5.5	11.6
<u>Wegro Div. of Old Ford Industries, Inc.</u>						
07	08	05	XXX Rose Maker	8.6	10.8	5.1
<u>WGM/Hydro</u>						
15.5			Vikingship Brand	14.8		
<u>Woolfolk Chemical Works, Inc.</u>						
14	14	14	Osmocote Foliage and Pot P1 Fd	14.2	14.3	15.1

Table 2. Summary for Each Manufacturer of Number of Claims for Individual Plant Nutrients, Percentage of Claims Not Meeting Guarantee, and Average Percentage of Guarantee for Each Nutrient.

Company	Number Samples	Number of Claims			% Not Meeting Claim			Average % of Claim		
		N	P205	K20	N	P205	K20	N	P205	K20
A.H. Hoffman	1	1	1	1	0	0	0	130	108	122
Agino	1	1	0	0	0	-	-	102	-	-
Agri-Turf	1	1	1	1	0	0	100	105	158	87
Agrico	1	0	1	1	-	0	100	-	165	84
Agway	28	27	28	27	15	14	30	102	115	117
Allied	1	1	0	0	0	-	-	104	-	-
Anderson Peat	1	1	1	1	0	0	0	150	100	100
Andersons	1	1	1	1	0	0	0	110	98	127
Atlas Fish Fert.	3	3	3	3	0	0	0	109	157	193
Burnishine	1	1	1	1	0	0	0	83	95	100
Cadwell & Jones	33	33	32	32	9	28	19	108	97	99
Carefree	1	1	1	1	0	0	0	103	115	113
Charles C. Hart	2	2	2	2	0	0	0	121	123	104
Chevron	16	16	16	16	0	6	6	111	105	115
Ciba-Geigy	1	1	1	1	100	0	0	87	98	101
Clinton Nursery	8	8	8	8	0	25	0	113	100	142
Crop Production	23	23	21	22	4	14	32	125	136	97
Espoma	5	5	5	5	0	0	20	124	160	129
Estech	18	18	18	18	0	0	22	149	152	119
Faesly & Besthoff	3	3	1	1	0	0	0	104	280	180
Fer-Mel	2	2	1	2	50	0	50	120	136	119
Green Charger	1	1	1	1	100	0	0	69	123	176
Holland Bulb	2	2	2	2	0	0	50	153	152	88
Hy-Trous/Flash	7	7	7	7	14	0	0	102	103	126
Hyponex	7	7	7	7	0	0	0	113	126	122
International Minerals	1	1	1	0	0	0	-	106	102	-
International Spike	12	12	12	12	8	8	0	134	126	131
J. T. Baker	1	1	1	1	0	0	0	111	106	235
Kalium	1	0	0	1	-	-	0	-	-	102
Koos	1	1	1	1	0	0	0	132	118	282
Lebanon	20	20	20	19	5	0	15	112	115	109
Leeming/Pfizer	1	1	1	1	0	0	0	100	115	110
Lesco	1	1	1	1	0	0	0	98	128	103
Lofts	4	4	4	4	0	25	75	184	117	60
Marcon	1	1	1	1	100	0	0	64	96	109
Milwaukee	1	1	1	0	0	0	-	103	110	-
Nitrochem	1	1	0	0	0	-	-	102	-	-
Nor-Am	1	1	0	0	0	-	-	97	-	-
O. M. Scott	11	11	11	11	0	0	27	109	106	98
Old Fox	30	30	30	30	13	17	3	115	143	147
Parrot Agro	3	3	3	3	0	0	33	103	101	99
Plant Research	5	5	5	5	0	0	0	123	105	125
Plantabbs	1	1	1	1	0	0	0	230	108	114
Rapid-Gro	5	5	5	5	20	0	0	85	103	110
Robert N. McClellan	1	1	1	1	100	0	100	50	110	55
Ross Daniels	9	9	9	9	0	0	0	116	116	120
Schultz	1	1	1	1	0	100	0	105	94	109
Sierra	1	1	1	1	0	0	0	94	127	112
Sohio	1	1	0	0	0	-	-	100	-	-
Sterns Nurseries	4	4	4	4	25	0	0	98	106	106
Sudbury Lab	3	1	1	1	0	0	0	110	128	110
Unique Fertilizer	1	1	1	1	0	0	0	116	174	118
Universal	1	1	1	1	0	100	0	114	84	103
Valagra	9	9	8	8	11	13	63	115	114	83
W. R. Grace	12	12	12	12	25	8	0	94	106	115
Waterlizer/Amer. Aqua	1	1	1	1	0	0	0	102	110	116
Wegro/Old Ford	1	1	1	1	0	0	0	123	135	102
WGM/Hydro	1	1	0	0	0	-	-	96	-	-
Woolfolk	1	1	1	1	0	0	0	101	102	108

Table 3. Distribution of Mixed Fertilizer Sold in Connecticut July 1, 1984-June 30, 1985

Grade	Tons
05-10-05	1102
05-10-10	1015
10-05-05	38
10-06-04	2203
10-10-10	5735
10-20-10	591
15-08-12	702
15-10-05	2
15-10-10	1626
15-15-15	887
15-20-25	6
15-30-15	107
18-04-10	24
19-19-19	283
20-00-10	33
20-03-03	34
20-04-08	116
20-05-10	446
20-10-10	598
20-20-20	65
24-12-18	241
25-03-03	161
25-05-10	152
27-03-03	895
30-00-00	143
30-10-10	44
32-00-00	18
38-00-00	76
TOTAL	17343
MISCELLANEOUS	19737
GRAND TOTAL	37080

Table 4. Tonnage of Fertilizer Material and Mixed Fertilizers Sold in Connecticut July 1, 1984-June 30, 1985

COMMODITY	TONS
MULTINUTRIENT	
Ammoniated phosphate	1399
TOTAL	1399
CHEMICAL NITROGEN	
Ammonium nitrate	125
Ammonium sulfate	52
Calcium nitrate	116
Nitrate of soda	6
Nitrogen solutions	1788
Other nitrogen materials	3
Urea	781
Ureaform	4
TOTAL	2875
PHOSPHATES	
Bone meal, raw	30
Bone meal, steamed	78
Phosphate rock	5
Superphosphate 18%	1
Superphosphate 20%	21
Superphosphate 40%	420
Superphosphate 46%	264
Other phosphate materials	16
TOTAL	835
POTASH	
Muriate of potash 60%	4031
Potassium carbonate	7
Potassium nitrate	43
Sulfate of potash	6
Sulfate of potash/magnesium	105
TOTAL	4192
NATURAL ORGANICS	
Caster pomace	75
Cottonseed meal	83
Dried blood	5
Dried manure- cattle	3620
Gelatin	8
Greensand	2
Manure, composted	1689
Other organics	1
TOTAL	5483
SECONDARY AND MICRONUTRIENTS	
Aluminum sulfate	2
Borax	1
Copper sulfate	17
Land plaster(gypsum)	39
Iron	2
Magnesium oxide	1
Sulfur	2
Zinc	1
Miscellaneous	1
TOTAL	66
TOTAL-COMMODITIES	14850
TOTAL-COMMERCIAL FERTILIZERS	37080
GRAND TOTAL	51930